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EXAMINER
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CHEN, TIANJIE

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/604,114

Applicant(s)

THOMPSON ET AL.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3 and 5-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,5,6 and 8-28 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## ***Final Rejection***

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 27, 2, 3, 5, 6, 8, 20-24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulakowski et al (US 5,303,214) in view of Dimitri (US 5,818,723).

Claim 27, Kulakowski et al shows a magazine-based data cartridge library in Figs. 1-3 including: a first library assembly 13 having a first frame and a second library assembly 14 having a second frame; the first frame including a first side surface (right side surface in Fig. 10) that comprises a first opening (rear portion on first surface in Figs. 10 and 2) through a first portion of the first side surface; the second frame comprising a second side surface that includes a second opening (the rear portion on left surface in Figs. 10 and 2) through a second portion of the second side surface; the first and second openings are adapted to form a passageway (See Fig. 2) between the first and the second library assemblies when the first and the second surfaces are substantially adjacent and aligned (Fig. 2); and a cartridge transport device for moving a data cartridge magazine within the first frame, through the passageway, and within the second frame.

Kulakowski et al does not show a magazine transport device for moving a data cartridge magazine within the first frame, through the passageway, and within the second frame.

Dimitri shows a magazine-based data cartridge library in Fig. 1, wherein a magazine transport device 110 capable of moving a data cartridge magazine among the frames. Dimitri also teaches that this magazine transport device would move the magazines faster thus speed up the processing process (Column 2, lines 28-41). One of ordinary skill in the art would have been motivated to add the magazine transport function onto the cartridge transport device in Kulakowski et al's device, thus speed up the processing process. In such constructed device, the data cartridge magazine transport device moves data cartridge magazine within the first frame, and moves data cartridge magazine through the first and second passageways, and also moves data cartridge magazine within the second frame.

Claim 2, in thus constructed device, the magazine transport device includes: a magazine picker in Dimitri's Fig. 3; and an elevator in Dimitri's Fig. 5 for moving the magazine picker; wherein the elevator includes a horizontal guide in Kulakowski et al's Fig. 4.

Claim 3, in thus constructed device, the horizontal guide includes a continuous horizontal guide that extends between the first and second frames (See Kulakowski et al's Fig. 2).

Claim 5, Kulakowski et al further shows that the horizontal guide includes: a first horizontal guide section located within the first frame, a second horizontal guide section located within the second frame, and a third horizontal guide section area

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extending located at the between the first horizontal guide section and the second horizontal guide section.

Claim 6, Kulakowski et al further shows that the horizontal guide is substantially linear.

Claim 8, Kulakowski et al shows a cartridge transport device for moving a data cartridge between a magazine and a drive (Column 5, lines 55-56); wherein the cartridge transport inherits an elevator since it transports cartridge stored in bins located at different altitudes.

Claim 20, Kulakowski et al shows that the first portion is capable of functioning as a magazine-based data cartridge library without the second portion.

Claim 21, the above constructed Kulakowski et al and Dimitri's device is includes a method for making a magazine-based data cartridge library including: first providing a magazine-based data cartridge library including: a cabinet; a shelf, located within the cabinet, for supporting a data cartridge magazine; a drive located within the cabinet; a cartridge transport, located within the cabinet, for moving a data cartridge between one of data cartridge magazines and the drive; a magazine transport device, located within the cabinet, for moving one of data cartridge magazines within the cabinet; wherein the magazine transport device including: a magazine picker; and a guide structure for use in moving the magazine picker within the cabinet; and Kulakowski et al further shows in Fig. 1, that the cabinet including a side surface that is readily alterable to form a first passageway extending through a portion of the first side surface; and second providing a magazine-based data cartridge library add-on including: an add-on cabinet; wherein the add-on cabinet including a second side

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surface that is either readily alterable to form a second passageway extending through a portion of the second side surface.

Claim 22, Kulakowski et al further shows in Fig. 1 that the library inherently provides a replacement guide structure for the guide structure of the magazine-based data cartridge library; wherein when the first passageway of the magazine-based data cartridge library and the second passageway of the magazine-based data cartridge library add-on are aligned, the replacement guide being of a length such that the magazine picker can be moved within the cabinet and the add-on cabinet.

Claim 23, Kulakowski et al shows in Fig. 1 that the library inherently provides an add-on guide structure for the guide structure of the magazine-based data cartridge library; wherein when the first passageway of the magazine-based data cartridge library and the second passageway of the magazine-based data cartridge library add-on are aligned, the guide of the magazine-based data cartridge library and the add-on guide structure being of a length such that the magazine picker can be moved within the cabinet and the add-on cabinet.

Claim 24, in above constructed device, that the add-on guide structure includes a first add-on guide structure and a second add-on guide structure.

Claim 28, the above constructed device also is a magazine-based data cartridge library including: a first library assembly 13 and a second library assembly 14; the first library assembly including a first frame having a first side (right side in Fig. 10), the first side covered by a first wall defined by at least a first (rear portion of side 51 in Fig. 10) and second plate (front portion of side 51 in Fig. 10), a first passageway extending through a first portion of the first side when the first plate is removed (Fig. 2); the second library assembly including a second frame having a second side, the

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second side covered by a second wall defined by at least a third and fourth plate, a second passageway extending through a second portion of the second side when the third plate is removed; and an added Dimitri's magazine transport function making the device being able for moving a data cartridge magazine within the first frame, moving the data cartridge magazine through the first and second passageways, and moving the data cartridge magazine within the second frame.

2. Claims 9-19, 25, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulakowski et al in view of Dimitri as applied to claim 1 above, and further in view of Hug et al (US 5,128,912).

Claim 9, in above constructed device, the transport device includes: a first magazine transport device for moving a data cartridge magazine within the first frame; but fails to show a second magazine transport device.

Hug et al shows a transport device in Fig. 1 includes: a first transport device 26 for moving a data cartridge within the first frame 12, and a second magazine transport device 28 for moving a data cartridge within the second frame 14 and within a first space that is within the first frame 12 (Fig. 2; column 5, line 65 to column 3, line 18).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to adapt Hug et al's configuration for the magazine transport device in above constructed device. The rationale is as follow: Hug et al teaches that as a single transport device is used, should that device break down, the entire apparatus becomes inoperative. Moreover, the overall speed is limited to the speed at which the transport mechanism can move between frames (Column 1, lines 27-432). The

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improved two transport devices system should be able to overcome these problems. One of ordinary skill in the art would have been motivated to apply Hug et al's structure for overcome the mentioned problems.

Claim 10, in above constructed device, the first magazine transport device further for moving a data cartridge magazine within a second space that is within the second frame.

Claim 11, in the above constructed device, the magazine transport device includes: a first magazine transport device moving a data cartridge magazine within the first frame and within space that is located between the first and second frames; and a second magazine transport device for moving a data cartridge magazine within the second frame and within the space that is located between the first and second frames.

Claim 12; Kulakowski et al and Dimitri's device includes a magazine transport device includes: a first magazine transport device for moving a data cartridge magazine within the first frame.

Hug et al shows a transport device in Fig. 1 includes: a first transport device 26 for moving a data cartridge within the first frame 12, and a second magazine transport device 28 for moving a data cartridge within the second frame 14 and within a first space that is within the first frame 12 (Fig. 2; column 5, line 65 to column 3, line 18).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to add Hug et al's transport devices 26 and 28 into Kulakowski et al and Dimitri's device and modified for transporting the magazine. The rationale is as follow: Hug et al teaches that as a single transport device is used, should that

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device break down, the entire apparatus becomes inoperative. Moreover, the overall speed is limited to the speed at which the transport mechanism can move between frames (Column 1, lines 27-432). The improved two transport devices system should be able to overcome these problems. One of ordinary skill in the art would have been motivated to apply Hug et al's structure for overcome the mentioned problems. In such constructed device, three transport devices will all be able to transport magazines.

Such constructed device includes: a second magazine transport device for moving a data cartridge magazine within the second frame; and a third magazine transport device for moving a data cartridge magazine through the first and second passageways.

Claim 13, in above constructed device, the first and second magazine transport devices each move in a plane.

Claim 14, in above constructed device, Hug et al shows that the third magazine transport device includes: a support 44, which have been modified for holding a data cartridge magazine; and means for rotating the support about an axis Y (Fig. 1).

Claim 15, Hug et al shows that the third magazine transport device includes: a support for holding a data cartridge magazine; and means for linearly along the direction 46 (Fig. 1), translating the support.

Claim 16, the added two transport devices from Hug et al are named as the first and second magazine transport devices each rotate about an axis Y (Fig. 1).

Claim 17, as described above, Hug et al shows that the second magazine transport device includes: a support for holding a data cartridge magazine; and means for rotating the support about an axis Y (Fig. 1).

Claim 18, as described above, Hug shows that the second magazine transport device includes: a support for holding a data cartridge magazine; and means for linearly translating the support.

Claim 19, in above constructed Kulakowski et al and Dimitri's device, the transport devices are able for moving a data cartridge between a magazine and a drive; wherein at least one of the first and second magazine transport devices includes an elevator; and wherein the cartridge transport device includes the elevator.

Claim 25, the above constructed device includes the step of second providing including providing a first add-on magazine transport device, which also located within the add-on cabinet, for moving a data cartridge magazine within the add-on cabinet.

Claim 26, the above constructed device includes a method including: third providing a second add-on data cartridge magazine device for transporting a data cartridge magazine between the magazine based data cartridge library and the magazine based data cartridge library add-on.

***Allowable Subject Matter***

5. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- With regard to claim 7, as the closest reference on record, the combination of Kulakowski et al (US 5,442,500) and Dimitri (US 5,818,723) shows a first library assembly having a first frame and a second library assembly having a second

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frame; the first frame comprising a first side surface that comprises a first opening through a first portion of the first side surface; the second frame comprising a second side surface that comprises a second opening through a second portion of the second side surface; the first and second openings are adapted to form a passageway between the first and the second library assemblies when the first and the second surfaces are substantially adjacent and aligned; and a magazine transport device for moving a data cartridge magazine within the first frame, through the passageway, and within the second frame, **but fails to show** that the horizontal guide follows a curve.

- Applicant asserts in this configuration, the robot moves in a space that is located between two concentric arcs. It should be appreciated that the embodiments illustrated in Figs. 3A and 3B are each capable of being implemented such that the shelf or shelves and drive or drives are laid out along a circular/cylindrical arc that defines a complete or substantially complete circle or cylinder (Specification, p. 43).

### ***Response to Arguments***

6. Applicant's arguments with respect to claim 27 and 28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Chen Tianjie*  
**TIANJIE CHEN**  
**PRIMARY EXAMINER**